



Note:

"EB" on the packaging indicates the United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

Operations in these instructions are described mainly using remote control, but you can do the operations on the main unit if the controls are the same.

Panasonic®

Operating Instructions

CD Stereo System

Model No. **SC-PM21**

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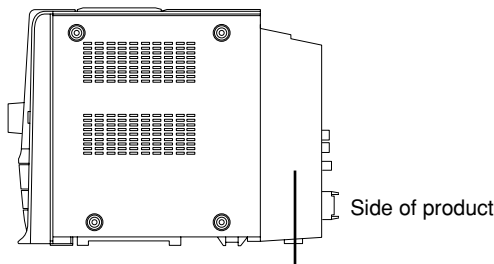


Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

These operating instructions are applicable to the following system.

System	SC-PM21
Main unit	SA-PM21
Speakers	SB-PM21



LUOKAN 1 LASERLAITE KLASS 1 LASER APPARAT

DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSÅFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSEJTELSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALLUKITUS OHITETTAESSA OLET ALLTIINA NÄKYMATÖNTÄ LASERSÄTEILYLLÄ. ÄLÄ KATSO SÄTEESEEN.
VARNING	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	OSYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPOSERING FOR STRÅLEN.
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

Inside of product
Tuotteen sisällä
Produktets innsida

(For Europe, Australia and New Zealand)

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

TÄMÄ LAITE ON TARKOITETTU KÄYTETTÄVÄKSI LEUDOSSA ILMASTOSSA.

DETTE APPARATET ER BEREGNET TIL BRUK UNDER MODERATE KLIMAFORHOLD.

(For Others)

THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

Laite tulee asettaa lähelle verkkopistorasiaa ja pistokkeen täytyy olla sellaisessa asennossa, että siihen on helppo tarttua ongelman sattuessa.

Utstyret bør plasseres i nærheten av AC-stikkontakten, og støpslet må være lett tilgjengelig hvis det skulle oppstå problemer.

Safety precautions

Placement

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.

Place it at least 15 cm away from wall surfaces to avoid distortion and unwanted acoustical effects.

Do not place heavy items on the unit.

Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.

Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.

Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.

Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.

Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

■ Sales and Support Information (For the United Kingdom and Republic of Ireland)

Customer Care Centre

- For UK customers: 08705 357357
- For Republic of Ireland customers: 01 289 8333
- Visit our website for product information
- E-mail: customer.care@panasonic.co.uk

Direct Sales at Panasonic UK

- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday-Friday 9:00am-5:30pm. (Excluding public holidays)
- Or go on line through our Internet Accessory ordering application at www.panasonic.co.uk
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products, take a browse on our website for further details.

Caution for AC Mains Lead

(For United Kingdom)
 ("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

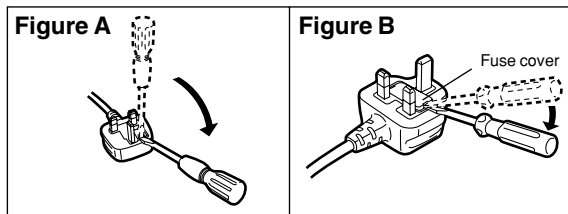
Remove the connector cover.

How to replace the fuse

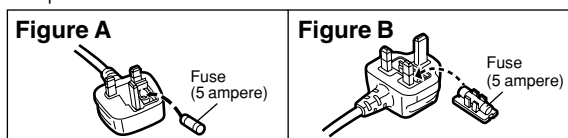
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.

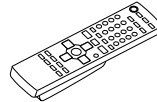


Supplied accessories

Please check and identify the supplied accessories.

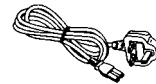
Use numbers indicated in parentheses when asking for replacement parts. (As of January 2005)

1 x Remote Control



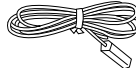
(N2QAJB000131)

1 x AC mains lead



(For U.K: VJA0733)

1 x FM indoor antenna



(RSA0007-L)



(For Australia and N.Z:
K2CJ2DA00010)

1 x Antenna plug adaptor



(For U.K: K1YZ02000013)

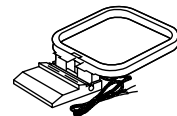


(For others:
K2CQ2CA00002)

2 x Remote control batteries



1 x AM loop antenna



(N1DAAAA00001)

Placement of speakers



Speakers are designed identically so that no left or right channel orientation is necessary.

- Keep your speakers at least 10 mm away from the system for proper ventilation.
- These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
- To avoid damage to the speakers, do not touch the speaker cones if you have taken the nets off.

Use only the supplied speakers.

- The combination of the main unit and speakers provide the best sound. Using other speakers can damage the unit and sound quality will be negatively affected.

⚠ Caution

- Use the speakers only with the recommended system. Failure to do so can damage the amplifier and speakers, and can cause fire. Consult a qualified service person if damage occurs or if a sudden change in performance is apparent.
- Do not attach these speakers to walls or ceilings.

Step 1 - Making the connections

Connect the AC mains lead only after all other connections have been made.

Preparation

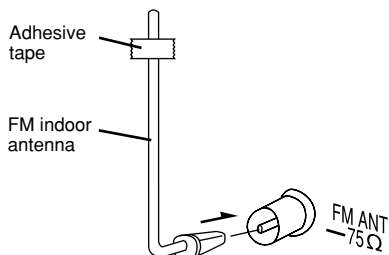
Twist and pull off the vinyl tip of the speaker cords.

OR

If the speaker cords do not have vinyl tips, directly connect them to the terminals.

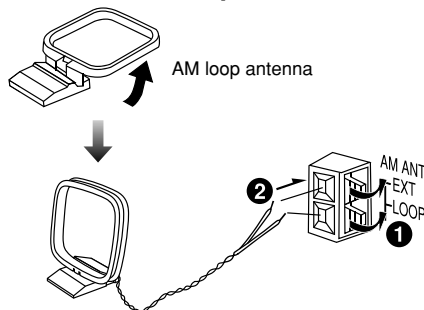


1 Connect the FM indoor antenna.



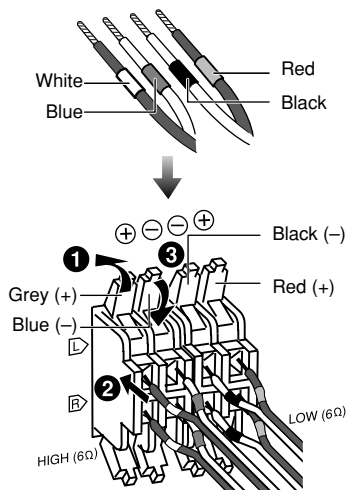
Tape the antenna to a wall or column, in a position with least amount of interference.

2 Connect the AM loop antenna.



Stand the antenna up on its base. Keep loose antenna cord away from other wires and cords.

3 Connect the speaker cables.



Cords with white and blue tags are for high frequency.
Cords with red and black tags are for low frequency.

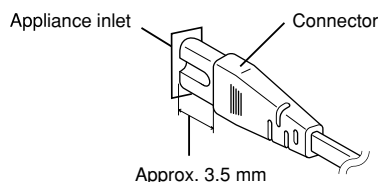
Incorrect connection can damage the unit.

4 Connect the AC mains lead.

**FOR THE UNITED KINGDOM ONLY
READ THE CAUTION FOR THE AC MAINS LEAD
ON PAGE 3 BEFORE CONNECTION.**

- The included AC mains lead is for use with this unit only. Do not use it with other equipment.

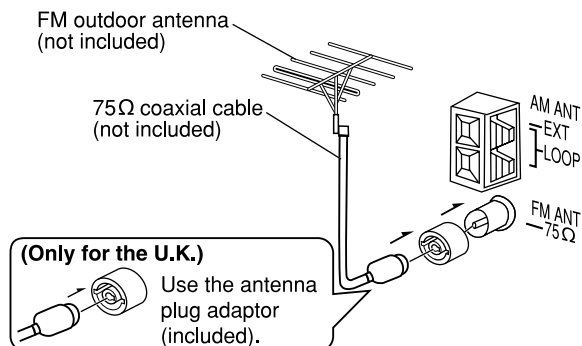
Insertion of connector



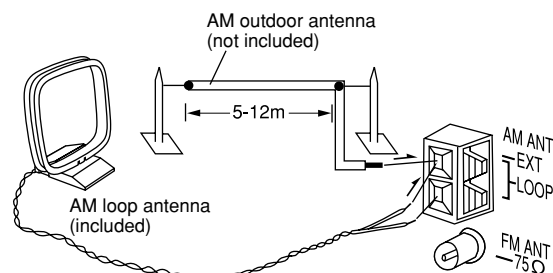
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.

Optional antenna connection

FM outdoor antenna

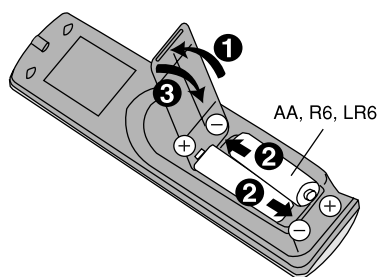


AM outdoor antenna



- Never use an outdoor antenna during a lightning storm.
- You can connect the FM outdoor antenna for better reception. Please consult your dealer for installation.
- Disconnect the FM indoor antenna if an FM outdoor antenna is installed.
- Connect the AM outdoor antenna without removing the AM loop antenna. Run 5 to 12 m vinyl-covered wire horizontally along a window or other convenient location.

Step 2 - Inserting batteries into the remote control



■ Batteries

- Insert so the poles (+ and -) match those in the remote control.
- Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place.
- Do not use rechargeable type batteries.
- Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

Do not:

- mix old and new batteries.
- use different types at the same time.
- heat or expose to flame.
- take apart or short circuit.
- attempt to recharge alkaline or manganese batteries.
- use batteries if the covering has been peeled off.

■ Use

- Aim at the remote control sensor, avoiding obstacles, at a maximum range of 7 m directly in front of the unit.
- Refer to page 6 for remote control signal sensor position.

Step 3 - DEMO function



When the unit is first plugged in, a demonstration of its functions may be shown on the display.
If the demo setting is off, you can show a demonstration by selecting "DEMO ON".

Press and hold [STOP ■, -DEMO].

The display change each time the button is held down.

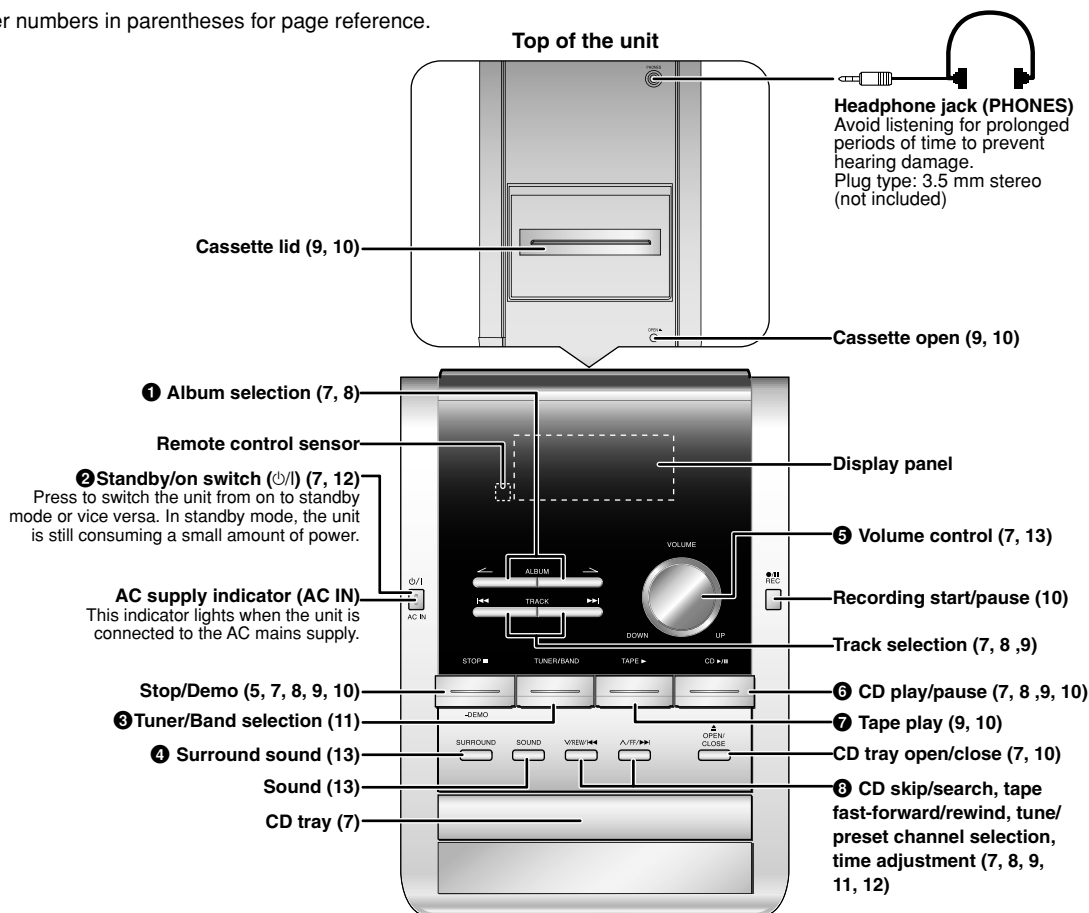
→ DEMO OFF → DEMO ON →

While in standby mode, select "DEMO OFF" to reduce power consumption.

Overview of controls

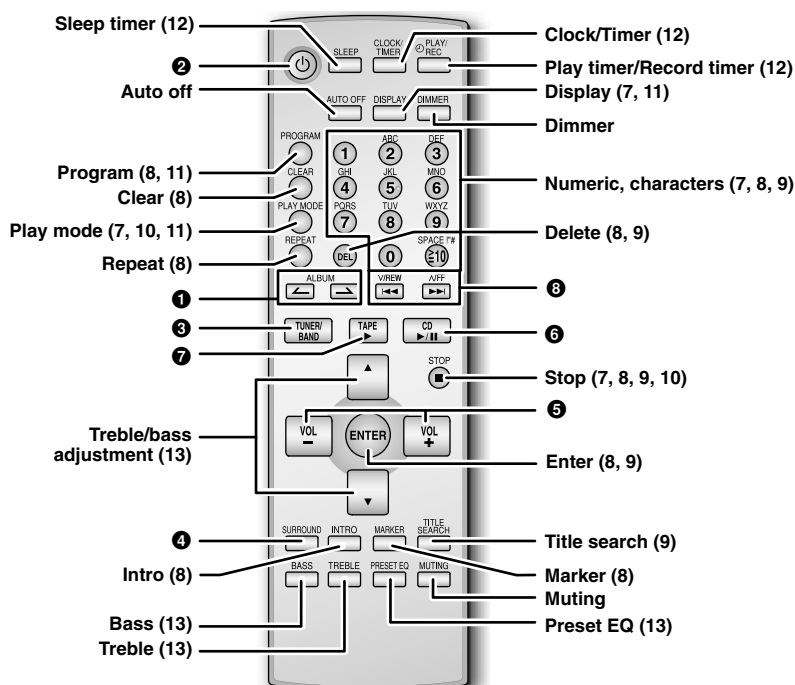
Main unit

Refer numbers in parentheses for page reference.

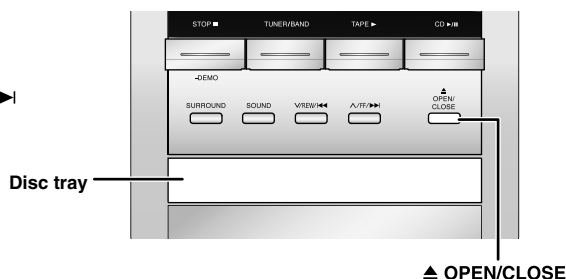
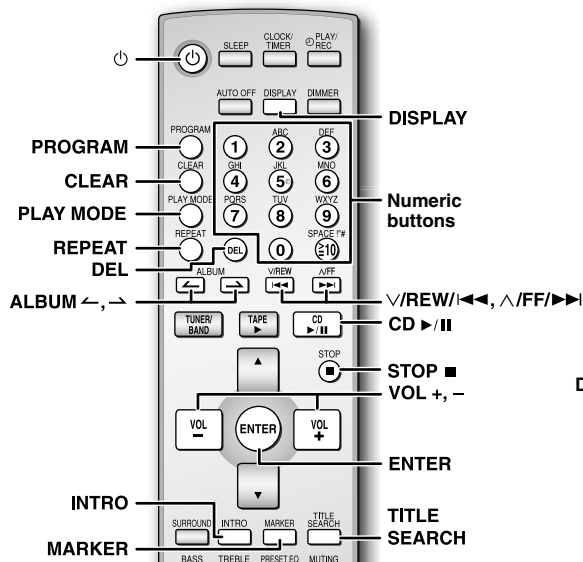


Remote control

Buttons such as 3 function the same as the controls on the main unit.



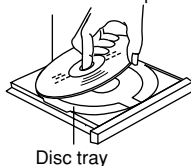
- AUTO OFF** This function allows you to turn off the unit in **CDs or tape** mode only after left unused for 10 minutes.
- The setting is maintained even if the unit is turned off.
- DIMMER** To dim the display panel.
- MUTING** To mute the sound
- Press the button to activate.
 - Press again to cancel.



Playing a disc

- 1 Press [⏻] to turn the unit on.
- 2 Press [▲ OPEN/CLOSE] to open the disc tray and then load the disc. Press again to close the tray.

Label must face upward



- 3 Press [CD ►/II] to start play.
- 4 Adjust the volume.

Other basic operations

To	Action
stop the disc	Press [STOP ■].
pause play	Press [CD ►/II]. Press again to resume play.
skip tracks	Press [V/REW/◀◀] or [^/FF/▶▶].
search through tracks (CD-DA Only)	Press and hold [V/REW/◀◀] or [^/FF/▶▶] during play or pause.
skip album (MP3 Only)	Press [ALBUM ◀ or ▶] in the play mode. Press [ALBUM ◀ or ▶] once and then the numeric buttons in the stop mode.

Play Mode function

- 1 Press [CD ►/II].
- 2 Press [PLAY MODE] to select the desired mode.

Mode	To play
1-TRACK 1TR	one selected track on the disc. Press the numeric buttons to select the track.
1-ALBUM 1ALBUM (MP3 only)	one selected album on the disc. Press [ALBUM ◀ or ▶] to select the album.
RANDOM RND	a disc randomly.
1-ALBUM RANDOM 1ALBUM RND (MP3 only)	all tracks in one selected album randomly. Press [ALBUM ◀ or ▶] to select the album.

- During RANDOM or 1-ALBUM RANDOM play, you cannot skip to tracks which have been played.
- During CD-DA RANDOM play, you can search backward or forward only within the current track.

CD display

DISPLAY This function allows you to display the information of the current track.

Press [DISPLAY] repeatedly during play or pause mode.

CD-DA

Elapsed play time ↔ Remaining play time

MP3

Elapsed time → Album name → Track name
ID3 (Artist) → ID3 (Track) → ID3 (Album) ←

- Maximum number of displayable characters: 30
- This unit supports ver. 1.0 & 1.1 ID3 tags. Text data that is not supported will not be displayed.
- ID3 is a tag embedded in MP3 track to provide information about the track.

Advanced CDs and MP3 functions

Direct access play

This function allows you to start play from a specific track.

CD-DA

Press the numeric buttons to select and play your desired track.

MP3

- 1 Press [ALBUM ← or →] to select the album.
- 2 Press [V/REW/◀] or [V/FF/▶] once and then the numeric buttons to select and play your desired track.

For two-digit track, press [≥10] once then the two digits.
For three-digit track, press [≥10] twice then the three digits.
• This function does not work during any random/program mode.

Repeat play

CD-DA

MP3

REPEAT You can repeat program play or other selected play mode.

Press [REPEAT] before or during play.
“REPEAT ON” and “☐” are displayed.

To cancel

Press [REPEAT] again.

“REPEAT OFF” is displayed and “☐” is cleared.

Marking a track

CD-DA

MP3

MARKER Enable you to mark one track on the disc loaded so that you can directly play the track later.

During play, press and hold the [MARKER] until “STORING” blinks on the display to mark your favourite track.

Press [MARKER] during play or stop mode to recall and play a marked track.

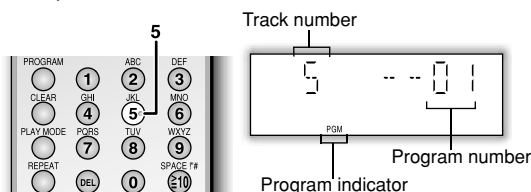
- The marker memory is cleared when you open the CD tray.
- This function does not work during any random/program mode.

Program play

PROGRAM This function allows you to program up to 24 tracks.

CD-DA

- 1 Press [CD ►/II] and then [STOP ■].
- 2 Press [PROGRAM].
- 3 Press the numeric buttons to select your desired track.
Repeat this step to program other tracks.
Example:

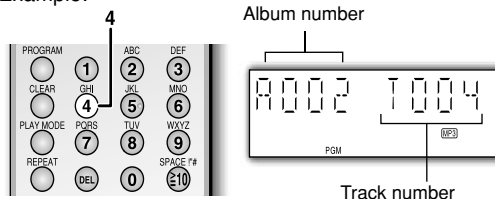


- 4 Press [CD ►/II] to start play.

MP3

- 1 Press [CD ►/II] and then [STOP ■].
- 2 Press [PROGRAM].
- 3 Press [ALBUM ← or →] to select your desired album.
- 4 Press [V/FF/▶] once and then the numeric buttons to select your desired track.

Example:



- 5 Press [ENTER] to store the program.
Repeat steps 3 to 5 to program other tracks.
- 6 Press [CD ►/II] to start play.

To	Action
cancel program mode	Press [PROGRAM] in the stop mode.
replay the program	Press [PROGRAM] then [CD ►/II].
check program contents	Press [V/REW/◀] or [V/FF/▶] when “PGM” is displayed in the stop mode. To check while programming, press [PROGRAM] twice after “PGM” appears, then press [V/REW/◀] or [V/FF/▶].
add to the program	Repeat step 3 in the stop mode for CD-DA. Repeat steps 3 to 5 in the stop mode for MP3.
clear the last track	Press [DEL] in the stop mode.
clear all programmed tracks	Press [CLEAR] in the stop mode. “PGM CLEAR” is displayed.

- When you try to programme more than 24 tracks “PGM FULL” appears.
- During program play for CD-DA, you can search backward or forward only within the current track.
- The program memory is cleared when you open the CD tray.

INTRO function (Album scan)

MP3

INTRO This function allows you to find an album by listening to the first track of all albums in the current disc for 10 seconds each.

- 1 Press [CD ►/II] and then [STOP ■].
- 2 Press [INTRO] to start the intro function.
- 3 While your desired album is playing, press [CD ►/II].
Intro mode cancelled and the playback continues.

INTRO function is cancelled after playing the first track in the last album.

To stop during the process, press [INTRO] or [STOP ■].

- This function does not work during any random/program mode.

Album/Track title search

MP3

TITLE
SEARCH

Enable you to search your desired album or track.

- 1 Press [CD ►/II] and then [STOP ■].
- 2 For album title search, press [TITLE SEARCH] once.
For track title search, press [TITLE SEARCH] twice.
- 3 Press the numeric buttons repeatedly to select your desired character then press [↵/FF/►►] to key in the next character.
 - You can enter up to 9 characters.
 - To edit, press [↵/REW/◀◀] or [↵/FF/►►] to revise any characters.
 - To delete, move the cursor over the character and then press [DEL].

Numbered buttons	Characters	Numbered buttons	Characters
1	1	6	M N O 6
2	A B C 2	7	P Q R S 7
3	D E F 3	8	T U V 8
4	G H I 4	9	W X Y Z 9
5	J K L 5	0	0
≥10	space !"# \$ % & ' () * + , - . / : ; = ? _ II		

- 4 Press [ENTER].
Press [↵/REW/◀◀] or [↵/FF/►►] to search for previous or next match.
- 5 Press [CD ►/II] to start play from the album/track found.

- "NOT FOUND" is displayed when there is no match.
- This function does not work during any random/program mode.

NOTE on CDs

- This unit can access up to 99 tracks.
- Choose CD with this mark.



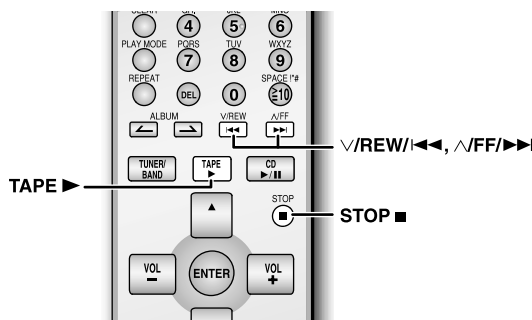
- This unit can play MP3 files and CD-DA format audio CD-R/RW that have been finalized.
- It may not be able to play some CD-R/RW due to the condition of the recording.
- Do not use irregular shaped disc.
- Do not use disc with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
- Do not attach extra labels or stickers on the disc.
- Do not write anything on the CD.

NOTE on MP3

- Files are treated as tracks and folders are treated as albums.
- This unit can access up to 999 tracks, 255 albums and 20 sessions.
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
- To play in a certain order, prefix the folder and file names with 3-digits numbers in the order you want to play them.

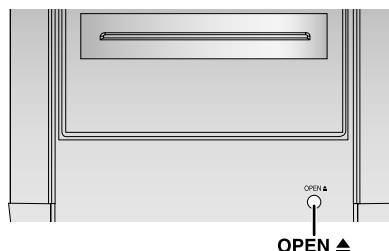
MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Cassette tape – Play

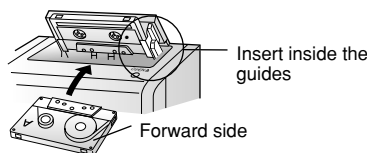


Basic play

- 1 Press [OPEN ▲] on top of the unit.



- 2 Insert a cassette.



- 3 Close the lid by hand.

- 4 Press [TAPE ►] to start play.

To play the other side of the cassette, turn the cassette over.

To	Action
stop tape playback	Press [STOP ■].
start one touch play	Press [TAPE ►] when the unit is OFF with the cassette loaded.
fast-forward and rewind	Press [↵/REW/◀◀] or [↵/FF/►►] in the stop mode.

TPS (Tape Program Sensor)

This function enables you to search the beginning of a track, up to a maximum of 9.

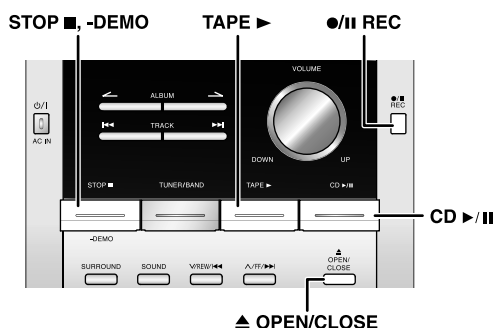
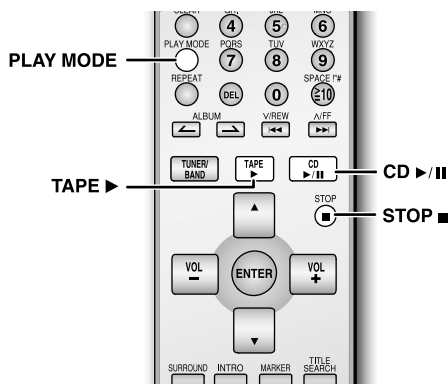
Press [↵/REW/◀◀] or [↵/FF/►►] during play.

Play resumes from the track found.

TPS may not function properly with:

- Short silent parts
- Noise occurs between tunes
- Silent parts found within tunes

Cassette tape – Record



Before recording

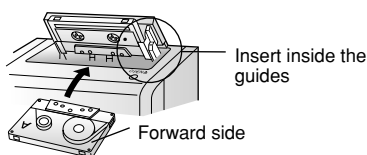
Preparation

Wind up the leader tape so that recording can begin immediately.

- Use normal position tapes.
- High position and metal position tapes can be used, but this unit will not be able to record or erase them correctly.

Recording CDs

- 1 Insert the cassette to be recorded on.



- 2 Press [▲ OPEN/CLOSE] to insert the CD. Press again to close.
- 3 Press [CD >||] and then [STOP ■, -DEMO].
- 4 Press [●/|| REC] to start recording.

Recording specific CDs or tracks

- 1 Press [CD >||] and then [STOP ■, -DEMO].
- 2 Press [PLAY MODE] to select your desired mode (refer page 7).
- 3 Press [●/|| REC] to start recording.

Recording programmed tracks

- 1 Program the tracks you want (refer page 8).
- 2 Press [●/|| REC] to start recording.

Recording the radio

- 1 Insert the cassette to be recorded on.
- 2 Tune to the required station (refer page 11).
- 3 Press [●/|| REC] to start recording.

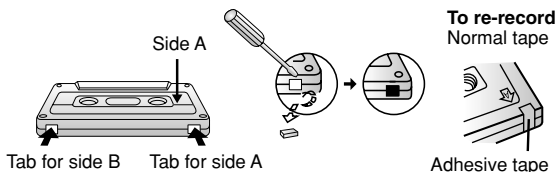
Other basic operations

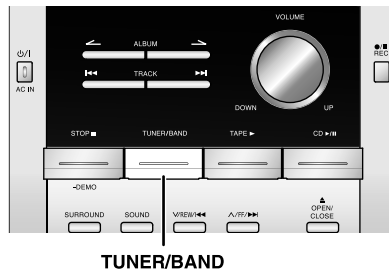
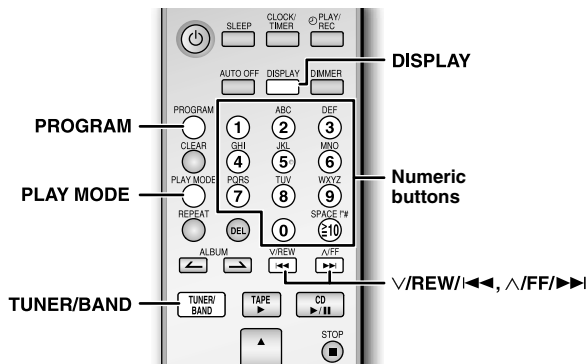
To	Action
erase a recorded sound	1) Insert the cassette to be recorded on. 2) Press [TAPE ▶] and then [STOP ■]. 3) Press [●/ REC].
stop recording	Press [STOP ■].
stop recording temporarily	1) Press [●/ REC]. 2) Press again to resume recording.
record on the other side of the tape	Turn the cassette over and press [●/ REC].

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

Erasure prevention

The illustration shows how to remove the tabs to prevent recording. To record on the tape again, cover as shown.





Manual tuning

- 1 Press [TUNER/BAND] to select “FM” or “AM”.
- 2 Press [PLAY MODE] to select “MANUAL”.
- 3 Press [V/REW/◀◀] or [▲/FF/▶▶] to select the frequency of the required station.



- **ST** is displayed when a stereo FM broadcast is being received.

To tune automatically

Press [V/REW/◀◀] or [▲/FF/▶▶] for a moment until the frequency starts changing rapidly. The unit begins auto tuning, stopping when it finds a station.

- Auto tuning may not function when there is excessive interference.
- To cancel auto tuning, press [V/REW/◀◀] or [▲/FF/▶▶] once again.
- Sound is momentarily interrupted if you load or unload tapes while listening to an AM broadcast.

To improve FM sound quality

Press and hold [PLAY MODE] to display “MONO”.

To cancel

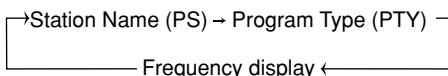
Press and hold [PLAY MODE] again until “MONO” disappear.

- MONO is also cancelled if the frequency is changed.
- Turn off “MONO” for normal listening.

RDS broadcasting (For Europe)

Enable you to display the name of a broadcasting station or a program type.

Press [DISPLAY] to display:



- RDS displays may not be available if reception is poor.

Program type displays			
NEWS	VARIED	FINANCE	COUNTRY
AFFAIRS	POP M	CHILDREN	NATIONAL
INFO	ROCK M	SOCIAL A	OLDIES
SPORT	M.O.R.M ※	RELIGION	FOLK M
EDUCATE	LIGHT M	PHONE IN	DOCUMENT
DRAMA	CLASSICS	TRAVEL	TEST
CULTURE	OTHER M	LEISURE	ALARM
SCIENCE	WEATHER	JAZZ	

※ M.O.R.M = “Middle of the road music”

Memory preset

Up to 15 stations each can be set in the FM and AM bands.

Preparation

Press [TUNER/BAND] to select “FM” or “AM”.

Automatic presetting

Press and hold [PROGRAM] to start presetting.

Manual presetting

- 1 Press [PLAY MODE] to select “MANUAL”.
- 2 Press [V/REW/◀◀] or [▲/FF/▶▶] to tune to the required station.
- 3 Press [PROGRAM].
- 4 Press numeric buttons to select a channel.
 - The station occupying a channel is erased if another station is preset in that channel.
- 5 Repeat steps 2 to 4 to preset more stations.

Selecting a preset station

Press numeric buttons to select the channel.

- For channels 10 to 15 press [≥10], then the two digits.

OR

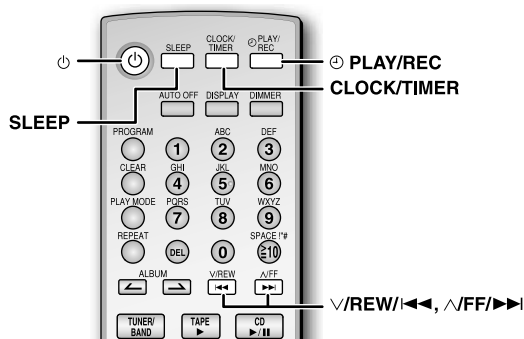
- 1 Press [PLAY MODE] to select “PRESET”.
- 2 Press [V/REW/◀◀] or [▲/FF/▶▶] to select the channel.

AM allocation setting

- This system can also receive AM broadcasts allocated in 10 kHz steps.

To change the step from 9 kHz to 10 kHz

- 1 Press [TUNER/BAND] to select “FM”.
- 2 Press and hold [TUNER/BAND].
 - After a few seconds the display changes to a flashing display of the current minimum frequency.
- 3 Continue to hold down [TUNER/BAND].
 - When the minimum frequency changes, release the button. To return to the original step, repeat the above steps.
 - After changing the setting, previously preset frequency will be cleared.

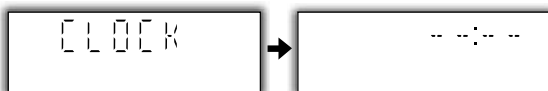
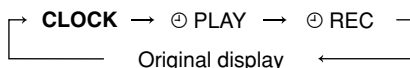


Setting the clock

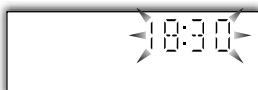
This is a 24-hour clock.

1 Press [CLOCK/TIMER] to select "CLOCK".

Each time you press the button:



2 Within 5 seconds, press [V/REW/◀◀] or [▶▶/FF/▶] to set the time.



3 Press [CLOCK/TIMER] again to confirm.



Displaying the clock

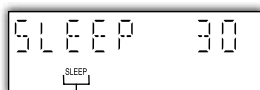
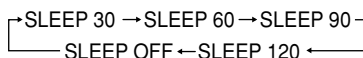
Press [CLOCK/TIMER] to display the clock for few seconds.

- The clock may lose or gain some time over a period. Readjust if necessary.

Using the sleep timer

This function enables you to turn off the unit automatically after the set time.

Press [SLEEP] to select your desired time.



Sleep timer indicator

To cancel

Press [SLEEP] to select "SLEEP OFF".

Changing the remaining time

Press [SLEEP] to show the time and press [SLEEP] again to select your desired time.

- The play and sleep timer or the record and sleep timer can be used together.
- The sleep timer always has priority. Be sure not to overlap timer settings.

Using the play or record timer

You can set the timer to come on at a certain time to wake you up (play timer) or to record from the radio (record timer).

Preparation

Turn the unit on and set the clock.

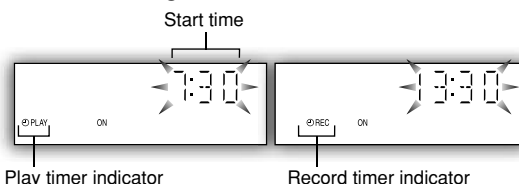
Timer	Action
Play timer	Prepare the music source you want to listen to; cassette, CD or radio, and set the volume.
Record timer	Check the cassette's erasure prevention tabs (refer page 10), insert the tape and tune to the radio station (refer page 11).

1 Press [CLOCK/TIMER] to select your desired timer.

Each time you press the button:

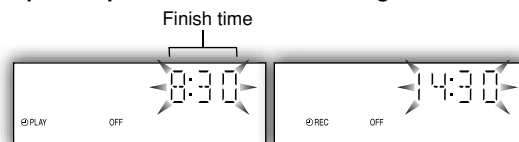


2 Within 5 seconds, press [V/REW/◀◀] or [▶▶/FF/▶] to set the starting time.



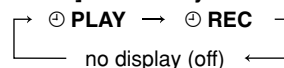
3 Press [CLOCK/TIMER] to confirm.

4 Repeat steps 2 to 3 to set the finishing time.



To activate the timer

5 Press [◻PLAY/REC] to turn on your desired timer.



6 Press [◻] to turn off the unit.

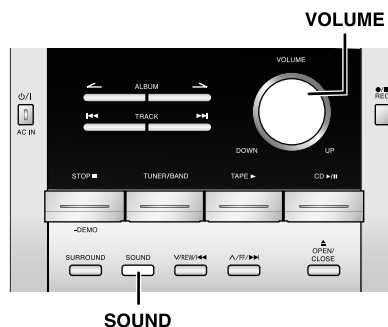
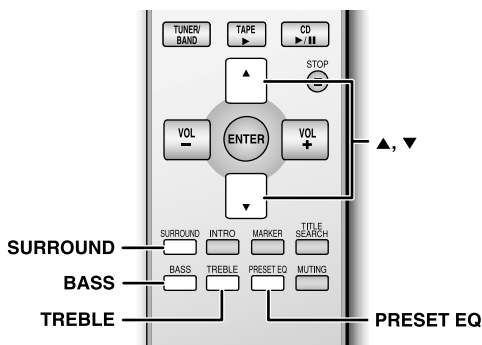
The unit must be off for the timers to operate.

Other basic operations

To	Action
change the settings	Repeat steps 1 to 4 and 6 above.
change the source or volume	1) Press [◻PLAY/REC] to clear the timer indicator from the display. 2) Make changes to the source or volume. 3) Do steps 5 to 6 as above.
check the settings (when the unit is on or in standby mode)	Press [CLOCK/TIMER] repeatedly to select ◻PLAY or ◻REC.
cancel	Press [◻PLAY/REC] to clear the timer indicators from the display.

- Play timer and record timer cannot be used together.
- The play timer will start at the preset time with volume increasing gradually to preset level.
- The record timer will start 30 seconds before the set time with the volume muted.
- The timer comes on at the set time everyday if the timer is on.
- The unit must be in the standby mode for the timer to function.
- If you turn the unit off and on again while a timer is functioning, the finish time setting will not be activated.

Sound Adjustment



Selecting sound effects

You can change the sound effect by selecting Preset EQ or adjusting the bass or treble effect.

Preset EQ

Press [PRESET EQ] repeatedly to select your desired setting.

HEAVY → CLEAR → SOFT → VOCAL → EQ-OFF

OR

To select Preset EQ using the main unit:

- 1 Press and hold [SOUND] to select "PRESET EQ".
Each time you press and hold the button:

PRESET EQ ↔ MANUAL EQ

- 2 Press [SOUND] repeatedly to select your desired setting.

Setting	Effect
HEAVY	Adds punch to rock
CLEAR	Clarifies higher frequencies
SOFT	For background music
VOCAL	Adds gloss to vocal
EQ-OFF	No effect

Bass or treble

Enable you to enjoy the lower or higher pitch sound.

- 1 Press [BASS] or [TREBLE] to select your desired setting.

Setting	Effect
BASS	For lower pitch sound
TREBLE	For higher pitch sound

- 2 Press [▼] or [▲] to adjust the level.

OR

To select bass or treble using the main unit:

- 1 Press and hold [SOUND] to select "MANUAL EQ".
- 2 Press [SOUND] to select bass or treble.
Each time you press the button:

→ BASS → TREBLE
original display ←

- 3 Turn the [VOLUME] up or down to adjust the bass or treble level.

• The tone level can be varied within -5 to +5.

Enjoying surround sound

Enable you to add natural width and depth to the stereo sound.

To activate

Press [SURROUND] to display "■■■■■" indicator.

To cancel

Press [SURROUND] again to clear "■■■■■" indicator.

- Surround sound is less discernible when listening through headphones.
- If interference in FM stereo reception increases, cancel the surround sound effect.

Troubleshooting guide

Before requesting service, make the below checks. If you can't fix the system as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

Common problems

No sound.	Turn the volume up. The speaker cords may not be connected properly. Turn the unit off, check and correct the connections and turn the unit on (refer page 4).
Sounds unfixed, reversed or come from one speaker only.	Check the speaker connections (refer page 4).
Humming heard during play.	An AC mains lead or fluorescent light is near the cables. Keep other appliances and leads away from this unit's cables. If possible in your area, turn the AC mains lead's plug or connector over to reverse the lead's polarity.
"ERROR" is displayed.	Incorrect operation performed. Read the instructions and try again.
"- -: -" appears on the display.	You plugged the AC mains lead in for the first time or there was a power failure recently. Set the time (refer page 12).
"F76" is displayed.	Check and correct the speaker cord connections (refer page 4). If this does not fix the problem, there is a power supply problem. Consult the dealer.

Listening to the radio

Noise is heard. The stereo indicator flickers or doesn't light. Sound is distorted.	Use an outdoor antenna (refer page 5).
A beat sound is heard.	Turn the TV off or separate it from the unit.
A low hum is heard during AM broadcast.	Separate the antenna from other cables and cords.
An AM broadcast station cannot be picked up clearly.	Frequency step is set to 10 kHz. Change the frequency step to 9 kHz (refer page 11).

When there is a television set nearby

The picture on the TV disappears or stripes appear on the screen.	The location and orientation of the antenna are incorrect. If you are using an indoor antenna, change to an outdoor antenna (refer page 5). The TV antenna wire is too close to the unit. Separate the antenna wire of the TV set from the unit.
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Using the cassette deck

Recording is not possible.	If the erasure prevention tabs have been removed, cover the holes with adhesive tape (refer page 10).
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Playing discs

The display is wrong or play won't start.	The disc may be upside down (refer page 7). Wipe the disc. Replace the disc if it is scratched, warped, or nonstandard. Condensation may have formed inside the unit due to a sudden change in temperature. Wait about an hour for it to clear and try again.
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The remote control

Remote control doesn't work.	Check that the batteries are inserted correctly (refer page 5). Replace the batteries if they are worn.
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Specifications

AMPLIFIER SECTION

RMS OUTPUT POWER both channel driven

10% Total harmonic distortion

1 kHz

(Low channel)

15 W per channel (6 Ω)

8 kHz

(High channel)

5 W per channel (6 Ω)

Total Bi-Amp power

20 W per channel

PMPO output power (For South East Asia only) 430 W

Output impedance

Headphone

16-32 Ω

FM TUNER SECTION

Frequency range

87.50–108.00 MHz

(50 kHz step)

Sensitivity

S/N 26 dB

1.5 μV (IHF)

1.25 μV

Antenna terminal(s)

75 Ω (unbalanced)

AM TUNER SECTION

Frequency range

522 – 1629 kHz (9 kHz steps)

520 – 1630 kHz (10 kHz steps)

Sensitivity

S/N 20 dB (at 999 kHz)

500 μV/m

CASSETTE DECK SECTION

Track system

4 track, 2 channel

Heads

Record/playback

Solid permalloy head

Erase

AC erase head

Motor

DC servo motor

Recording system

AC bias 100 kHz

Erase system

AC erase 100 kHz

Tape speed

4.8 cm/s

Overall frequency response (+3, -6 dB) at DECK OUT

NORMAL

35 Hz – 14 kHz

S/N RATIO

50 dB (A weighted)

Wow and flutter

0.08 % (WRMS)

Fast forward and rewind time

Approx. 120 seconds with C-60 cassette tape

CD SECTION

Disc played

CD/MP3/CD-R/RW

8 cm/12 cm

Bit rate

MP3

32 kbps – 320 kbps

Sampling frequency

CD

44.1 kHz

MP3

32 kHz, 44.1 kHz, 48 kHz

Decoding

16 bit linear

Pickup

Beam source/wavelength

Semiconductor laser/780 nm

(For Norge)

Bølgelengde

780 nm

Laserstyrke

Ingen farlig stråling sendes ut

Number of channels

Stereo

Wow and flutter

Below measurable limit

Digital filter

8 fs

D/A converter

MASH (1 bit DAC)

Frequency response

20 Hz – 20 kHz (+1, -2 dB)

SPEAKER SECTION

Type

2 way, 2 speaker system

Speaker(s)

Woofer

10 cm cone type

Tweeter

6 cm cone type

Impedance

High

6 Ω

Low

6 Ω

Input power (IEC)

High

40 W (Max)

Low

40 W (Max)

Sound pressure level

82 dB/W (1.0 m)

Crossover frequency

3.5 kHz

Frequency range

50 Hz–30 kHz (–16 dB)

55 Hz–25 kHz (–10 dB)

Dimensions (W x H x D)

140 mm x 225 mm x 218 mm

Mass

1.95 kg

GENERAL

Power supply

For Continental Europe

AC 230 V, 50 Hz

For United Kingdom, Australia and N.Z.

AC 230-240 V, 50 Hz

For South East Asia

AC 220-240 V, 50/60 Hz

Power consumption

62 W

Dimensions (W x H x D)

165 mm x 228 mm x 315.6 mm

Mass

3.8 kg

Power consumption in standby mode 0.8 W

Note:

- Specifications are subject to change without notice.
Mass and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

Maintenance

If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

For a cleaner crisper sound

Clean the heads regularly to assure good quality playback and recording.

Use a cleaning tape (not included).

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!

- DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

SUOMI

VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAÄ ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VAROITUS!

- ÄLÄ ASENNA TAI LAITA TÄTÄ LAITETTA KABINETTITYYPPISEEN KIRJAKAAPPIIN TAI MUUHUN SULJETTUUN TILAAN, JOTTA TUULETUS ONNISTUISI. VARMISTA, ETTÄ VERHO TAI MIKÄÄN MUU MATERIAALI EI HUONONNA TUULETUSTA, JOTTA VÄLTETTÄISIIN YLIKUUMENEMISESTA JOHTUVA SÄHKÖISKU- TAI TULIPALOVAARA.
- ÄLÄ PEITÄ LAITTEEN TUULETUSAUKKOJA SANOMALEHDELLÄ, PÖYTÄLIINALLA, VERHOLLA TAI MUULLA VASTAVALLLA ESINEELLÄ.
- ÄLÄ ASETA PALAVAA KYNTTILÄÄ TAI MUUTA AVOTULEN LÄHDETTÄ LAITTEEN PÄÄLLE.
- HÄVITÄ PARISTOT LUONTOA VAHINGOITTAMATTOMALLA TAVALLA.

VAROITUS:

TULIPALO-, SÄHKÖISKUVAARAN TAI TUOTETTA KOHTAAVAN MUUN VAHINGON VÄHENTÄMISEKSI EI LAITETTA SAA ALTISTAA SATEELLE, KOSTEUDELLE, VESIPISAROILLE TAI ROISKEELLE, EIKÄ NESTETTÄ SISÄLTÄVIÄ ESINEITÄ, KUTEN ESIMERKIKSI MALJAKOITA, SAA ASETTAA LAITTEEN PÄÄLLE.

NORSK

ADVARSEL!

DETTE PRODUKTET ANVENDER EN LASER. BETJENING AV KONTROLLER, JUSTERINGER ELLER ANDRE INNGREP ENN DE SOM ER BESKREVET I DENNE BRUKSANVISNING, KAN FØRE TIL FARLIG BESTRÅLING. DEKSLER MÅ IKKE ÅPNES, OG FORSØK ALDRI Å REPARERE APPARATET PÅ EGENHÅND. ALT SERVICE OG REPARASJONSARBEID MÅ UTFØRES AV KVALIFISERT PERSONELL.

ADVARSEL!

- APPARATET MÅ IKKE Plasseres i en bokhylle, et innebygget kabinet eller et annet lukket sted hvor ventilasjonsforholdene er utilstrekkelige. Sørg for at gardiner eller lignende ikke forverrer ventilasjonsforholdene, så risiko for elektrisk sjokk eller brann forårsaket av overheting unngås.
- APPARATETS VENTILASJONSÅPNINGER MÅ IKKE DEKKES TIL MED AVISER, BORDDUKER, GARDINER OG LIGNENDE.
- Plasser ikke åpen ild, slik som levende lys, oppå apparatet.
- Brukte batterier må kasseres uten fare for miljøet.

ADVARSEL:

FOR Å REDUSERE FAREN FOR BRANN, ELEKTRISK STØT ELLER SKADER PÅ PRODUKTET, MÅ DETTE APPARATET IKKE UTSETTES FOR REGN, FUKTIGHET, VANNDRÅPER ELLER VANNSPRUT. DET MÅ HELLER IKKE Plasseres gjenstander fylt med vann, slik som blomstervaser, oppå apparatet.